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1. An airbag inflator diffusion system comprising:
an airbag inflator having an exhaust gas exit port;
a sleeve configured to receive the inflator and secure the inflator within the sleeve,
the sleeve being configured to expand radially under a force of impinging exhaust gas
5 from the exit port to form an exhaust passage between the inflator and the sleeve.

2. An airbag inflator diffusion system, as in claim 1, wherein the sleeve
comprises a solid section configured to receive direct impingement of the exhaust gas
from the exit port and direct the exhaust gas through the exhaust passage.

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3. An airbag inflator diffusion system, as in claim 2, wherein the sleeve
comprises a permeable section adjacent to the solid section and configured to allow
exhaust gas to flow from the exit port through the exhaust passage to an area external to
the sleeve.

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4. An airbag inflator diffusion system, as in claim 3, wherein the solid
section is further configured to circumscribe the exit port.

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5. An airbag inflator diffusion system, as in claim 3, wherein the permeable
section is further configured to circumscribe a length of the inflator excluding the exit
port.

6. An airbag inflator diffusion system, as in claim 4, wherein the sleeve comprises a plurality of solid sections and permeable sections and the airbag inflator comprises a plurality of exit ports.

5 7. An airbag inflator diffusion system, as in claim 6, wherein each solid section is positioned next to a permeable section.

8. An airbag inflator diffusion system, as in claim 7, wherein the sleeve is substantially cylindrical.

10 9. An airbag inflator diffusion system, as in claim 8, wherein a first longitudinal edge of the sleeve overlaps a second longitudinal edge along a length of sleeve.

15 10. An airbag inflator diffusion system, as in claim 9, wherein the sleeve is metallic.

20 11. An airbag inflator diffusion system, as in claim 1, wherein the sleeve is made from a flexible material.

12. An airbag inflator diffusion system, as in claim 1, wherein the sleeve is rigid.

13. An airbag inflator diffusion system, as in claim 1, wherein the permeable
5 section comprises a plurality of holes formed in the sleeve.

14. An airbag inflator diffusion system, as in claim 1, wherein the permeable
section comprises a porous material configured to allow exhaust gas to pass through the
sleeve.

15. An airbag inflator diffusion system, as in claim 1, wherein a cross-
sectional shape of the sleeve is substantially the same as the cross-sectional shape of the
inflator.

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20. An airbag inflator diffuser, as in claim 18, wherein the sleeve is formed from a blank rolled to form a substantially cylindrical shape and configured such that a first edge of the blank overlaps a second edge.

5 21. An airbag inflator diffuser, as in claim 20, wherein the blank is metal.

22. A method for fabricating an intra-airbag inflator diffuser, comprising:
providing a planar rectangular blank;
forming one or more permeable sections in the blank;
rolling the blank such that a first edge of the blank overlaps a second edge to form
5 a substantially cylindrical sleeve; and
inserting an intra-airbag inflator longitudinally within the sleeve such that one or
more exit ports of the inflator are obstructed by one or more solid sections of the sleeve.
23. A method as in claim 22, wherein the blank is made of pliable material of
10 a thickness that allows an impingement force of exhaust gas from exit ports in the intra-
airbag inflator to expand the sleeve radially to form an exhaust passage between the intra-
airbag inflator and the sleeve.
24. A method as in claim 23, wherein forming one or more permeable sections
15 comprises stamping the blank in a die configured to form one or more permeable sections
along a length of the blank, the permeable sections being positioned such that solid
sections configured to impinge one or more exit ports of the intra-airbag inflator are
formed between the permeable sections.

25. A method as in claim 24, wherein a diameter of the sleeve is substantially the same as a diameter of the intra-airbag inflator to be inserted longitudinally within the sleeve.

5 26. A method as in claim 25, wherein the one or more permeable sections comprise one or more holes configured to allow exhaust gas to pass from the exhaust passage to an area external to the sleeve.

10 27. A method as in claim 26, wherein the one or more holes are further configured to catch gas generated residue carried by the exhaust gas.

15 28. A method as in claim 27, further comprising crimping each end of the sleeve to secure the intra-airbag inflator within the sleeve.

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